



Cisco Policy Suite 18.3.0 Release Notes (Restricted Release)

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IMPORTANT: CPS 18.3.0 is a Short Term Support (STS) release with availability and use restrictions. Contact your Cisco Account or Support representatives, for more information.

Introduction

This release note identifies new features and enhancements, limitations and restrictions, and open and resolved CDETS in Cisco Policy Suite (CPS) software version 18.3.0. Use this release note in combination with the documentation listed in the Related Documentation section.

This release note includes the following sections:

- New and Changed Feature Information
- Installation Notes
- Limitations and Restrictions
- Open and Resolved CDETS
- Related Documentation
- Obtaining Documentation and Submitting a Service Request

New and Changed Feature Information

This section identifies features that are new or modified in this release.

ANDSF

No new features or changes were introduced in this release.

ATS

Enhanced Control for Test Execution

PATS loop control structure now includes a break grammar that terminates the loop execution based on the specified break condition.

Previously, the loop control structure executed all the steps/grammars within it for a certain number of given iterations. In loop break grammar, the conditions are evaluated first. If the condition returns true, the loop execution stops and vice versa. Then the next steps after the loop termination grammar are executed. The loop break grammar syntax is:

Given I break loop if <Conditions>

You can specify the break from the loop depending on the comparison of values such as:

- Numeric
- String
- Boolean
- Values enclosed with conditional block

Currently, the loop break structure has the following limitations:

- Not supported in a nested loop
- Not supported in a loop that is enclosed by any conditional block.
- Only condition can be provided in the break grammar. Conditional steps are not allowed.

For more information, contact your Cisco Technical Support Representative.

Enhanced Grammars for CoAP Requests and Responses

In this release, the following new grammars are included for CoAP requests and responses:

- Validate message ID and reference message ID in requests and responses
- Send custom and duplicate message ID in requests and responses
- Validate received responses using attributes and/or message reference
- Send asynchronous requests and validate responses
- Validate reference token in request and response

- Send custom and duplicate token in request

For more information, contact your Cisco Technical Support Representative.

Round-Robin Traffic for Performance Test of Multiple Peer Communication

Currently, PATS/SITE Diameter driver supports multiple peer connection for server stack. You can choose any particular peer by providing destination FQDN and Destination Realm.

PATS/SITE Diameter driver waits for first peer. In this release, a new timer parameter is introduced to allow a wait time for other peer connection establishment. The following parameter is included in timer.properties file:

Diameter.MultiplePeer.WaitTime=X

This parameter specifies the wait time in milliseconds to allow other peer to be connected after the first peer is established. Default Value: 0 (No wait time)

For more information, contact your Cisco Technical Support Representative.

Support for HTTP/2 Client

PATS now supports HTTP/2 client. You can configure HTTP/2 version and other properties in the config.properties file.

This functionality helps users to:

- Send HTTP/2 request from SITE to any HTTP/2 enabled endpoint.
- Verify any HTTP/2 response received at the SITE.
- Use all the HTTP methods like GET, POST etc. while sending a request via HTTP/2

For more information, contact your Cisco Technical Support Representative.

Behavior Changes

CSCvg99670 – SNMP – VM UP trap for pcrfclient01 is not coming when pcrfclient01 is cold started.

Previous Behavior: Currently, on pcrfclient01 if Policy Server (qns) process is down, pcrfclient is not raising alarm for the down process.

New Behavior: In CSP 18.3.0 and later releases, on pcrfclient node, if Policy Server (qns) process is down, 'logstash_process_status' program stops the logstash process so that the alarm is raised from another pcrfclient node.

Impact on Customer: None

CSCvk01065: CPS is creating duplicate EDRs for soft delete sessions in case of pool use case

Previous behavior: Broadcast was done to soft deleted sessions causing re-evaluation (and other side effects).

New behavior: By default, CPS skips soft deleted sessions for broadcast. Only non-deleted sessions are triggered for re-evaluation.

Impact on customer: Impact of broadcast to soft deleted sessions is not observed.

Geographic Redundancy

No new features or changes were introduced in this release.

LWR

No new features or changes were introduced in this release.

Mobile

Support for MCPTT

CPS is enhanced to support the MCPTT bit (bit 17) from Feature-List-ID 1 in Rx TGPP Specifications. MCPTT-Identifier AVP in RxAAR is ignored if the MCPTT feature is not negotiated. CPS supports MCPTT-Identifier as an input column AVP pair for RxSTGConfiguration and RxSTGDefaultBearerConfiguration service configurations.

For more information, see the *CPS Mobile Configuration Guide*.

Support for a NB-IOT Device

PCRF supports devices using narrow band Internet of Things (NB-IoT) RAT that is a 3GPP radio interface to support IoT devices.

PCRF can create a session with UE having RAT-type as NB-IOT and provides all functionalities (such as policy control and charging rule functionality) to an NB-IOT devices.

The existing input variable, ratType, for the condition, Diameter Gx TGPP Session Exists, in Use Case Initiator is enhanced to support NB-IoT RAT-type.

For more information, see the *CPS Mobile Configuration Guide*.

MOG

Local Session Affinity in MOG

New session lookup type called “local” is added to support local session affinity. When session lookup type is set to “local”, **local session database** is used for read/write session irrespective of site lookup configuration.

For more information, see *Configure MOG Lookup Value* section in the *CPS MOG Guide*.

vPAS Interface Changes

vPAS configuration in Policy Builder is enhanced with the following changes:

- vPAS Query For Put Requests: new check box to configure whether MOG should send vPAS Query after PUT request or not.
- Default value of the polling interval is modified from 30 minutes to 0 minutes.

For more information, see *vPAS Configuration* section in the *CPS MOG Guide*.

Operations

API Additions or Changes

No changes were introduced in this release.

MIB Additions or Changes

No changes were introduced in this release.

KPI Additions or Changes

No changes were introduced in this release.

Log Additions or Changes

No changes were introduced in this release.

SNMP Alarm Additions or Changes

No changes were introduced in this release.

Statistics Additions or Changes

The following new statistics are included for the vDRA feature “Support for Session Route Key Configuration for vDRA Rx AAR Fallback Routing”:

- `com.broadhop.unifiedapi.statistics:name=rest.get`: Success and Failure stats of API called by DRA
- **db_stats (new label “source” with values “pcrf” and “gx”): Gauge for current number of IPv6 bindings based on PCRF session query.**

The following new statistics are included for the vDRA feature “Support for Load Balancing IPv6 Binding Session Queries Across PCRFs in a Group”:

- `Pcrf_heartbeat_request_send`: Counter for total number of Keepalive REST API requests sent to PCRF for checking REST API interface status. Labels: `url_endpoint`, `status`

Performance Improvement

MongoDB Automatic Recovery Process Enhancement

In CPS 18.3.0, replica-set creation has been automated so that the downtime during recovery process is minimal. The following new components have been added:

- AIDO server: Responsible to create/update replica-sets
- AIDO client: Responsible to start mongod on database node

CPS and AIDO do not support sharded option. By default, only non-sharded is supported.

Operations such as, create and add-member in `build_set.sh` commands are now changed and they verify the replica-set status and AIDO handles all the operations.

`build_set.sh --all --create`: This command verifies all the local members configured in replica-set and replica-set is up.

To use `build_set.sh` to create replica-set, you need to add the new option: `--force`.

For more information, see the *CPS Installation Guide for VMware* and *CPS Geographic Redundancy Guide*.

Upgrade MongoDB to 3.2.19

In CPS 18.3.0, MongoDB is upgraded from 3.2.13 to 3.2.19. To verify MongoDB version on VMs, execute the following command from Cluster Manager:

```
cat /etc/broadhop/mongoConfig.cfg | grep -e '^MEMBER' -e '^ARBITER=' | cut -d= -f 2 | while read hnp; do echo $hnp; mongo --quiet $hnp --eval "db.version()"; done
```

pcrfclient01:27717

3.2.19

sessionmgr01:27717

3.2.19

sessionmgr02:27717

3.2.19

Note: Post upgrade all the data members and arbiters for all the replica-sets must show the same mongo version i.e. 3.2.19.

Platform

OpenStack Queens

In CPS 18.3.0, CPS can be installed on OpenStack Queens.

For more information, see the *CPS Installation Guide for OpenStack*.

Upgrade VMX Version and vCenter

In CPS 18.3.0, support for VMX11 is added only for fresh install. In option 2 (offline upgrade)/option 3 (ISSU), only CPS software on an existing VM is upgraded. Hence VMX version is not upgraded in option 2/3.

For more information, see *Deploy the Cluster Manager VM* section in the *CPS Installation Guide for VMware*.

Policy Reporting

No new features or changes were introduced in this release.

Product Security

Redis Authentication

In CPS 18.3.0 and later releases, you can restrict the access to Redis Server by enabling authentication so that unauthorized access can be avoided. Redis authentication must be configured explicitly (TRUE/FALSE) for fresh installations. By default, Redis authentication is enabled for fresh installations.

All access to Redis Server from application would require password after the server is enabled with authentication. Application reads the encrypted password from environment variable, decrypts it, and uses it to connect to Redis Server.

If password matches the password in the configuration file, the server replies with the OK status code and starts accepting commands. Otherwise, an error is returned and you need to try a new password.

For more information on Redis authentication, refer to the following sections:

In *CPS Installation Guide for VMware*:

- General Configuration Parameters table
- Redis Authentication
- Redis Authentication for Upgrading/Migrating Systems

In *CPS Installation Guide for OpenStack*:

- Configuration Parameters - HA System table
- Redis Authentication for Upgrading/Migrating Systems

Security Enhancements

This section lists enhancements introduced to support Cisco Product Security Requirements and the Product Security Baseline (PSB). For more information about Cisco Product Security Requirements, refer to:

<https://www.cisco.com/c/en/us/about/security-center/security-programs/secure-development-lifecycle/sdl-process.html>

PSB Requirement Support for CPS 18.3.0

CPS now supports the following PSB requirements:

- Prevents exposure of credentials and other critical data
- Provides cryptographic protection outside controlled space

UDC

Support to Stop Window Buffer

CPS can be configured to stop window buffer on receiving particular Diameter messages.

For more information, see the *CPS UDC Administration Guide*.

UI Enhancements

Support for Safeguard Warning Messages in Policy Builder

CPS is enhanced to notify users with notifications and warning messages when a new policy is applied by selecting a plugin configuration which overrides the existing configuration.

For more information, see the *CPS Mobile Configuration Guide*.

Search Table Groups Listed Based on Evaluation Order Value

CPS now supports listing of search table groups and their respective CRD tables based on the evaluation order value. If the evaluation order value is same for two or more tables then they are listed alphabetically.

For more information, see the *CPS Central Administration Guide*, *CPS vDRA Administration Guide* and *CPS Mobile Configuration Guide*.

vDRA

Configuration of HTTP Response Codes for REST API JSON Codes

vDRA supports configuration of the HTTP response error code (such as 4xx, 5xx) corresponding to each vDRA Rest API JSON error response code for the GET binding (for example imsi, imsiApn, msisdn, msisdnApn, ipv4, ipv6) Rest API.

This HTTP response error code is used in the response for any GET binding Rest API request. If this CRD is not configured with HTTP response error codes, then vDRA returns the default HTTP response status code.

For more information about the CRD, see the *CPS vDRA Configuration Guide*.

If you do not configure the Rest API HTTP Error Code in the CRD, vDRA uses the default HTTP error codes for GET binding Rest API. For a list of the default HTTP error codes, see the *CPS vDRA Troubleshooting Guide*.

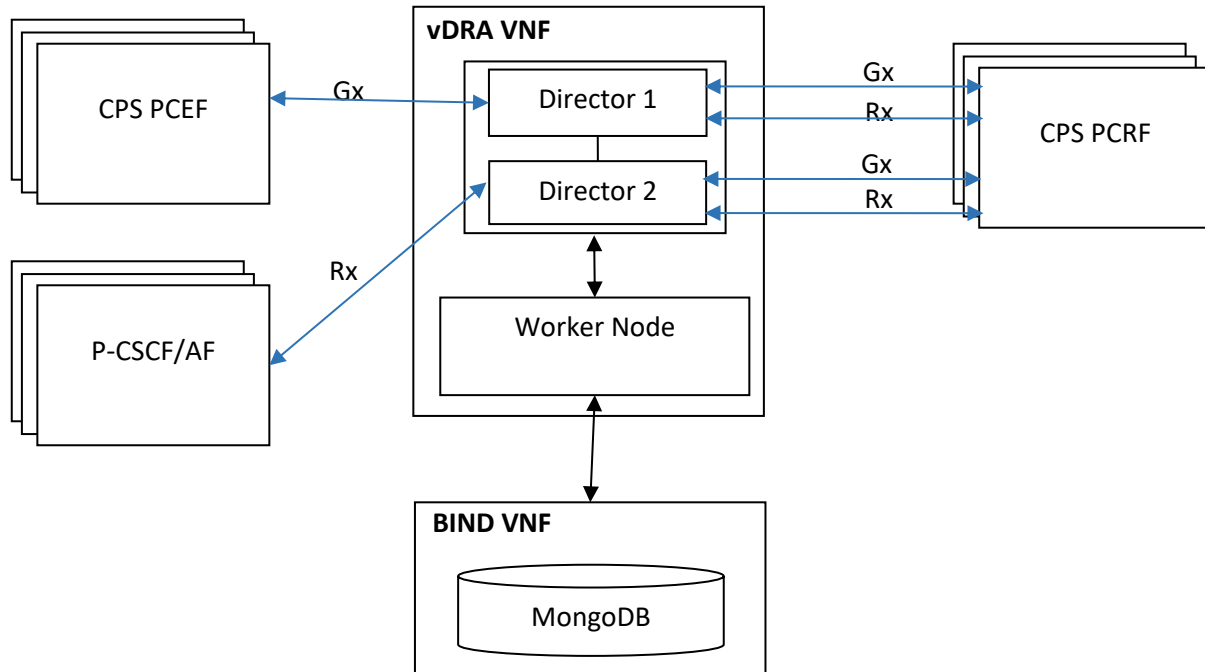
Support for Auto Refresh in DRA GUI

CPS DRA is enhanced to support Auto-refresh option that refreshes data every 30 seconds and displays the Data Last Refreshed field that indicates the time when data is fetched from server.

For more information, see the *CPS vDRA Administration Guide*.

Support for Diameter Load Balancing to Same Peer Across Multiple DRA Directors

CPS now includes diameter load balancing. Previously, when a PCRF is connected to multiple directors and the PCEF traffic comes on one director only, all the traffic would be handled by director-PCRF connection where PCEF is connected. In this release, the requests are load balanced across multiple DRA directors, as shown in the following illustration.



This load balancing is irrespective of the type of routing: destination, host, SRK-based, or table-driven routing.

For more information, see the *CPS vDRA Configuration Guide*.

Support for Session Route Key Configuration for vDRA Rx AAR Fallback Routing

CPS provides the option to configure the session route key (Session Route Key in Unified API Plugin Configuration) that vDRA uses to look up the peer group and route the Rx AAR message to the correct PCRF.

When vDRA makes REST API requests to multiple PCRFs for session query using the IPv4 or IPv6 address received in the Rx AAR message, the PCRF that has the corresponding Gx session sends the session routing key in the response.

vDRA then uses this key to look up the peer group and routes the Rx AAR message to the correct PCRF.

vDRA also includes a new option “Create IPv6 Bindings based on PCRF Session Query” that you enable to create IPv6 record: When PCRF session query result (success) is received and if IPv6 record is not present in the database, vDRA

creates an IPv6 binding record based on the response from the PCRF. If any CCR-I is received for the same IPv6 record, then it overwrites the IPv6 binding record. For any CCR-T, vDRA deletes the IPv6 binding record from database. The Stale Binding Expiry and Refresh Minutes are used to clear these binding records from the database.

For more information about this feature, see the following documents:

- Configure the session route key in the Unified API plugin configuration as described in the *CPS Mobile Configuration Guide*.
- **Configure the PCRF session query CRD for Rx AAR fallback routing:** see “PCRF Session Query Peers” in the *CPS vDRA Configuration Guide*.
- Enable both the PCRF Session Query and the Create IPv6 Bindings based on PCRF Session Query options in the vDRA plugin configuration as described in the *CPS vDRA Configuration Guide*.

Support for Load Balancing IPv6 Binding Session Queries Across PCRFs in a Group

vDRA supports load balancing of IPv6 binding queries across multiple PCRF API endpoints (VIPs). Previously, all REST queries were sent to the primary endpoint and only if the primary query fails, then the request is sent to secondary. Now, the requests are load balanced across the different PCRF endpoints within a peer group. If the session query results indicate that the PCRF does not have the corresponding Gx session for the IPv6 prefix, then vDRA does not send the query to the other PCRF configured in the same group. Similarly, for all other failures, vDRA sends the session query request to the secondary PCRF in the group. If there are more than two PCRF API endpoints configured in the PCRF group, then vDRA only uses the first two entries and remaining PCRFs are ignored. If there is no group name, the PCRF API endpoint is considered as a standalone PCRF.

For more information, see the *CPS vDRA Configuration Guide*.

Support to Synchronize Repositories

vDRA is now enhanced to support synchronization of Policy Builder (PB) repository information from an active PB to a passive PB. This helps passive PB to access the latest PB repository details when the active session goes down.

Note: When an active PB session is down, do not manage (add/edit/delete) the PB repositories from the passive PB. After the active PB is up, the passive PB repository details are overwritten by the active PB.

vDRA Open Source Components Upgrade

In this release, the following vDRA components are upgraded:

- Grafana to version 5.1.4 - To receive timely updates of Grafana and other security issues.

- Azul Zing Binding Worker – Specific to launching worker nodes.

Installation Notes

Download ISO Image

Download the 18.3.0 software package (ISO image) from:

<https://software.cisco.com/download/home/284883882/type/284979976/release/18.3.0>

Md5sum Details

23971a69b208c78c666a3327ace25e9c	CPS_18.3.0_Base.qcow2.release.tar.gz
54c260f0338645abfb358cf6dc5d1f4f	CPS_18.3.0_Base.vmdk.release.tar.gz
eb41c07edc6fc3833cb56c452a35a460	CPS_18.3.0.release.iso
50157e963e2e039c1343bc0db31df5f3	CPS_Microservices_18.3.0_Base.release.qcow2
ef39a2cad4c9068924729cc929c880b0	CPS_Microservices_18.3.0_Base.release.vmdk
6613167fe143efc872f74a0ae99e4c28	CPS_Microservices_18.3.0_Deployer.release.qcow2
4af703151ef67e0f6d56862e472ce480	CPS_Microservices_18.3.0_Deployer.release.vmdk
89e33d64e779ecf33f604849a1589bb2	CPS_Microservices_DRA_18.3.0.release.iso
fc6507a3ca7c83e369f2f4f390bebad5	CPS_Microservices_DRA_Binding_18.3.0.release.iso

Component Versions

The following table lists the component version details for this release.

Table 1 Component Versions

Component	Version
ANDSF	18.3.0.release
API router	18.3.0.release
Audit	18.3.0.release
Balance	18.3.0.release
CALEA	18.3.0.release

Component	Version
Cisco API	18.3.0.release
Cisco CPAR	18.3.0.release
Congestion Reference Data	18.3.0.release
Control Center	18.3.0.release
Core	18.3.0.release
CSB	18.3.0.release
Custom Reference Data	18.3.0.release
DHCP	18.3.0.release
Diameter2	18.3.0.release
DRA	18.3.0.release
Entitlement	18.3.0.release
Fault Management	18.3.0.release
ISG Prepaid	18.3.0.release
LDAP	18.3.0.release
LDAP Server	18.3.0.release
LWR	18.3.0.release
Microservices Enablement	18.3.0.release
Notification	18.3.0.release
NRF	18.3.0.release
NSLB	18.3.0.release
NSSF	18.3.0.release
PCF	18.3.0.release
Policy Intel	18.3.0.release
POP-3 Authentication	18.3.0.release
RADIUS	18.3.0.release
Recharge Wallet	18.3.0.release
SCE	18.3.0.release
SCEF	18.3.0.release

Component	Version
Scheduled Events	18.3.0.release
SPR	18.3.0.release
UDC	18.3.0.release
UDSC Interface	18.3.0.release
Unified API	18.3.0.release

New Installations

- VMware Environment
- OpenStack Environment

VMware Environment

To perform a new installation of CPS 18.3.0 in a VMware environment, see the *CPS Installation Guide for VMware, Release 18.3.0*.

OpenStack Environment

To perform a new installation of CPS 18.3.0 in an OpenStack environment, see the *CPS Installation Guide for OpenStack, Release 18.3.0*.

Migrate an Existing CPS Installation

To migrate an existing CPS installation, see the *CPS Migration and Upgrade Guide, Release 18.3.0*. CPS migration is supported from CPS 14.0.0, CPS 18.0.0, and CPS 18.1.0.

Upgrade an Existing CPS Installation

To upgrade an existing CPS installation, see the *CPS Migration and Upgrade Guide, Release 18.3.0*. CPS upgrade is supported from CPS 18.2.0.

During ISSU from CPS 18.2.0 to CPS 18.3.0, if the following issue is observed then one needs to reboot Cluster Manager and start ISSU again:

```
/dev/mapper/control: open failed: No such device
```

Failure to communicate with kernel device-mapper driver.

Check that device-mapper is available in the kernel.

Incompatible libdevmapper 1.02.140-RHEL7 (2017-05-03) and kernel driver (unknown version).

Command failed

The issue is observed only when the kernel is updated for the first time. In subsequent ISSU, the kernel issue is not observed.

Post Migration/Upgrade Steps

Re-Apply Configuration Changes

After the migration/upgrade is finished, compare your modified configuration files that you backed up earlier with the newly installed versions. Re-apply any modifications to the configuration files.

Verify Configuration Settings

After the migration/upgrade is finished, verify the following configuration settings.

Note: Use the default values listed below unless otherwise instructed by your Cisco Technical Representative.

Note: During the migration/upgrade process, these configuration files are not overwritten. Only during a new install will these settings be applied.

- `/etc/broadhop/qns.conf`
 - o `-Dmongo.client.thread.maxWaitTime.balance=1200`
 - o `-Dmongo.connections.per.host.balance=10`
 - o `-Dmongo.threads.allowed.to.wait.for.connection.balance=10`
 - o `-Dmongo.client.thread.maxWaitTime=1200`
 - o `-Dmongo.connections.per.host=5`
 - o `-Dmongo.threads.allowed.to.wait.for.connection=10`
 - o `-Dcom.mongodb.updaterIntervalMS=400`
 - o `-Dcom.mongodb.updaterConnectTimeoutMS=600`
 - o `-Dcom.mongodb.updaterSocketTimeoutMS=600`
 - o `-DdbSocketTimeout.balance=1000`
 - o `-DdbSocketTimeout=1000`
 - o `-DdbConnectTimeout.balance=1200`
 - o `-DdbConnectTimeout=1200`
 - o `-Dcontrolcenter.disableAndsf=true`
 - o `-DnodeHeartBeatInterval=9000`
 - o `-DdbConnectTimeout.balance=1200`

- o `-Dstatistics.step.interval=1`
- o `-DshardPingLoopLength=3`
- o `-DshardPingCycle=200`
- o `-DshardPingerTimeoutMs=75`
- o `-Ddiameter.default.timeout.ms=2000`
- o `-DmaxLockAttempts=3`
- o `-DretryMs=3`
- o `-DmessageSlasMs=1500`
- o `-DmemcacheClientTimeout=200`
- o `-Dlocking.disable=true`

Note: The following setting should be present only for GR (multi-cluster) CPS deployments:

```
-DclusterFailureDetectionMS=1000
```

Note: In an HA or GR deployment with local chassis redundancy, the following setting should be set to true. By default, it is set to false.

```
-Dremote.locking.off
```

- `/etc/broadhop/diameter_endpoint/qns.conf`
 - o `-Dzmq.send.hwm=1000`
 - o `-Dzmq.recv.hwm=1000`

Reconfigure Service Option

After upgrading from previous release to the current CPS release, Service option configured with Subscriber-Id becomes invalid and you need to reconfigure multiple Subscriber Id in SpendingLimitReport under Service Configurations.

Verify logback.xml Configuration

Make sure the following line exists in the logback.xml file being used. If not, then add the line:

```
<property scope="context" name="HOSTNAME" value="${HOSTNAME}" />
```

To ensure logback.xml file changes are reflected at runtime, the scanPeriod must be explicitly specified:

```
<configuration scan="true" scanPeriod="1 minute" >
```

Note: In case scanPeriod is missing from already deployed logback.xml file, the application needs to be restarted for the updated scanPeriod configuration to be applicable.

After completing the updates in logback.xml, execute the following command to copy the file to all the VMs:

```
SSHUSER_PREFERROOT=true copytoall.sh /etc/broadhop/logback.xml /etc/broadhop/logback.xml
```


Additional Notes

This section provides additional notes necessary for proper installation/working of CPS.

- CSCvf52617: GR_ST: Grafana stops displaying all mongostats in dashboard when Primary member of one DB goes down

Issue: In case any member of a replica-set is not reachable, you will not be able to see Mongo statistics in grafana. Not reachable can happen due to network problems or blade going down or member is intentionally stopped.

Workaround: Make non-reachable member reachable. For example:

- If the member is intentionally stopped then one has to start using `/etc/init.d/sessionmgr - * start` script.
- If there is a network issue, then this issue the network issue needs to be fixed.
- Session Manager Configuration: After a new deployment, session managers are not automatically configured.
 - a. Edit the `/etc/broadhop/mongoConfig.cfg` file to ensure all of the data paths are set to `/var/data` and not `/data`.
 - b. Then execute the following command from `pcrfclient01` to configure all the replication sets:

```
/var/qps/bin/support/mongo/build_set.sh --all --create
```
- Default gateway in lb01/lb02: After the installation, the default gateway might not be set to the management LAN. If this is the case, change the default gateway to the management LAN gateway
- By default, pending transaction feature is enabled. If you are not using it, Cisco recommends to disable pending transaction feature post deployment.

To disable pending transaction, the following parameter can be configured in `/etc/broadhop/qns.conf` file:

```
com.broadhop.diameter.gx.pending_txn.attempts=0
```

After adding the parameter in `qns.conf` file, restart all VMs.

- CSCvb74725: Avoid manual steps in API based GR installation

Issue: The fresh install of API based GR installation does not execute set priority properly.

Workaround:

- a. The fresh install of API does not execute set priority properly. You need to set the priority manually by executing the following command:

```
set_priority.sh --db all
```
- b. You need to delete the default ring configuration present in `cache_config` database. After fresh install in case Active/Active Geo-HA feature is enabled, default ring configuration needs to be deleted manually. To remove/replace ring config, following two options are available:

- o Delete directly from **database**. Remove from “**cache_config**”, if “**shards**” is empty. This may need restart of qns services.
- OR
- o Run OSGi command `setSkRingSet <ringId> <setId> <servers>` which replaces existing values.

- c. Unused replica-set need to be removed manually.

There is no API support for removing replica-set. So you need to remove the replica-set manually by executing the following command:

```
build_set.sh --<dbname> --remove-replica-set <setname>
```

For example,

```
build_set.sh --spr --remove-replica-set --setname set04
```

- d. If someone changes `qns.conf` parameters using API post system is deployed using PATCH method, then `restartall.sh` has to be executed manually so that configuration changes become effective.
- e. You need to be set the priority manually for members after adding via `addMember` API by executing the following command:

```
set_priority.sh --db all
```

- CSCvd30781: `set_priority.sh` broken ImportError: No module named util when running `set_priority.sh` on `pcrfclient01`

Issue: `set_priority.sh` from `pcrfclient01` and `pcrfclient02` is broken. No module named util is found when running `set_priority.sh`.

Workaround: Execute `set_priority.sh` from Cluster Manager. If you do not have replication network on the Cluster Manager, you need to copy the util sub-directory from the Cluster Manager to `pcrfclient01` and `pcrfclient02`.

Source on Cluster Manager: `/var/qps/install/current/scripts/modules/util`

Destination on `pcrfclient01/02`: `/var/qps/bin/install/current/scripts/modules/util`

- CSCvc66672: System is crashing when run more than 6k tps

Issue: High response time is observed when system is running with all the default features installed and has Gx traffic with 6K TPS.

Consideration: It is recommended to create session replica-set as per performance requirements for scaling.

Solution:

- o Create/update `/etc/broadhop/mongoConfig.cfg` file on Cluster Manager VM to create session cache shards in criss-cross fashion.

```
[SESSION-SET1]
```

```
SETNAME=set01
```

```

OPLOG_SIZE=5120

ARBITER1=arbitervip:27717

ARBITER_DATA_PATH=/var/data/sessions.1

MEMBER1=sessionmgr01:27717

MEMBER2=sessionmgr02:27717

DATA_PATH=/var/data/sessions.1/1

[SESSION-SET1-END]

[SESSION-SET2]

SETNAME=set07

OPLOG_SIZE=5120

ARBITER1=arbitervip:27727

ARBITER_DATA_PATH=/var/data/sessions.7

MEMBER1=sessionmgr02:27727

MEMBER2=sessionmgr01:27727

DATA_PATH=/var/data/sessions.1/2

[SESSION-SET2-END]

```

- o For further information on how to create replica sets, see *Create Specific Replica-set* and *Session Cache Replica-set* sections in the *CPS Installation Guide for VMware*.
- o Set session database priority so that the PRIMARY members will be on separate VM:

```

cd /var/qps/bin/support/mongo
./set_priority.sh --db session

```

For more information on `set_priority.sh` script, see the *CPS Operations Guide* and *CPS Geographic Redundancy Guide*.

- o To create session shards, see the *Create Session Shards* section in *CPS Installation Guide for VMware*.
- CSCve40105: Session databases do not recover on power outage

Issue: Session databases do not recover after full system outage.

Condition: Replica configuration is not available after system outage on Arbiter VIP. This is verified using the following command (XXXXX is port number):

```
mongo --host arbitervip:XXXXX --eval "rs.isMaster()['info']" --quiet
```

Does not have a valid replica set config

Probable Cause: This happens as VIP was up on different pcrfclient (e.g. pcrfclient01) when outage took place and after recovery it is on another pcrfclient (e.g. pcrfclient02). Thus, previous mongo configuration is not available with current active pcrfclient and recovery script is not able to recover data.

Workaround: User has to flip the VIP when the session databases mounted on tmpfs do not recover after full system outage. To force a switchover of the arbiter VIP to the other pcrfclient, you have to execute the following command:

```
ssh arbitervip service corosync stop
service corosync stop
```

- CSCvg28401: CPS diameter dictionary gets corrupted when there is a change in custom AVP list.

Issue: CPS Diameter dictionary gets corrupted when there is a change in custom AVP list.

Probable Cause: The dictionary corruption happens when Policy Builder is published with custom AVP changes. This results in one thread of execution clearing up the AVP cache and populating the cache with the updated AVPs.

During this, if the thread of call processing uses the AVP cache before it is populated with the AVPs, it pushes NullAvpRepresentation object in the cache for which it did not find any definition. This results in decoding failure of the Diameter message. This is a race condition which manifests during high TPS.

Workaround: After configuring custom AVP list, restart CPS using the `restartall.sh` script.

- Add support to disable syncing carbon database and bulk stats files (ISSM)

Add the following flags in `/var/install.cfg` file:

```
SKIP_BLKSTATS
```

```
SKIP_CARBONDB
```

Example to disable syncing:

```
SKIP_BLKSTATS=1
```

```
SKIP_CARBONDB=1
```

- Add the following parameters in `/var/install.cfg` file to skip installation type selection and initialization steps during ISSU/ISSM:

```
INSTALL_TYPE
```

```
INITIALIZE_ENVIRONMENT
```

Example:

```
INSTALL_TYPE=mobile
```

```
INITIALIZE_ENVIRONMENT=yes
```

- CSCvi48586: `change_passwd.sh` script is getting stuck for root user after fresh deploy.

Issue: `change_passwd.sh` script is getting stuck for root user after fresh installation.

Workaround: The point where the script gets stuck, enter the existing password (not the changed one) for the root user. The script runs successfully after this point in few seconds.

- CSCvi21871: Permission denied when connecting DRA cli and not able to connect dra central

Issue: Permission denied when connecting to DRA orchestrator CLI with the default admin credentials.

Workaround: Log into the orchestrator container from the master VM and reload the aaa_init.xml file into confd.

```
cps@master-0:/data/orchestrator$ docker exec -it orchestrator bash
```

```
root@orchestrator:/# /var/confd/bin/confd_load -l -m /data/cdb/aaa_init.xml
```

```
root@orchestrator:/# exit
```

```
exit
```

```
cps@master-0:/data/orchestrator$
```

Primary Member is Isolated from all Arbiters

Issue: If the primary database member gets isolated from all the arbiters then diagnostics output displays incorrect states.

Solution: If a member is shown in an unknown state, it is likely that the member is not accessible from one of other members, most likely an arbiter. In that case, you must go to that member and check its connectivity with other members. Also, you can login to mongo on that member and check its actual status.

Limitations and Restrictions

This section covers the following topics:

- Limitations
- Common Vulnerabilities and Exposures

Limitations

- The following restriction applies to LWR:
 - In this release, LWR supports read and write of one user attribute to the replication framework specific to the ADTM bearer counting attribute.
In future releases, UDC and other applications will be enhanced to provide support of new attributes or user profile details that may require replication

- Solicited Application Reporting

The following are some restrictions on configuration for the new service options:

- The pre-configured ADC rule generated by CRD lookup has ADC-Rule-Install AVP definition with support for only three AVPs ADC-Rule-Name, TDF-Application-Identifier, Mute-Notification.
- For AVPs that are multi-valued, CRD tables are expected to have multiple records - each giving the same output.
- Comma(,) is not a valid character to be used in values for referenced CRD column in SdToggleConfiguration.
- AVP Table currently only supports OctetStringAvp value for AVP Data-type.
- During performance testing, it has been found that defining a large number of QoS Group of Rule Definitions for a single session results in degraded CPU performance. Testing with 50 QoS Group of Rule Definitions resulted in a 2x increase in CPU consumption. The relationship appears to be a linear relationship to the number of defined QoS Group of Rule Definitions on a service.
- Hour Boundary Enhancement
Change in cell congestion level when look-ahead rule is already installed:
If a cell congestion value changes for current hour or any of the look-ahead hours, there will be no change in rule sent for the rules that are already installed.
No applicability to QoS Rules:
The look-ahead works for PCC rules only where we have rule activation/deactivation capabilities and can install upcoming changes in advance. However, if the RAN Congestion use case is changed to use the QoS-Info AVP instead of using PCC rules, we need to fall back to the current RAR on the hour boundary implementation for that use case since the standard do not let us install QoS-info changes ahead of time like we can with PCC rules.
- The Cluster **Manager's internal (private) network IP address must be assigned to the host name "installer" in the /etc/hosts file**. If not, backup/restore scripts (`env_import.sh`, `env_export.sh`) will have access issues to OAM (pcrfclient01/pcrfclient02) VMs.
- The Linux VM message.log files repeatedly report errors similar to the following:
`vmsvc [warning] [guestinfo] RecordRoutingInfo: Unable to collect IPv4 routing table.`
This is a known issue affecting ESXi 5.x. Currently, there is no workaround for this. The messages.log file entries are cosmetic and can be safely ignored. For more information, see http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=2094561
- CSCva02957: Redis instances continue to run, even after redis is disabled using the parameter `-DenableQueueSystem=false` in `qns.conf (/etc/broadhop/)` file and `/etc/broadhop/redisTopology.ini` file.

- CSCva16388: A split-brain scenario (that is, VIPs are up on both nodes) can still occur when there is connectivity loss between lb01 and lb02 and not with other hosts.

Common Vulnerabilities and Exposures (CVE)

No CVEs were found in this release.

Open and Resolved CDETS

The following sections list open and resolved CDETS for this release. For your convenience in locating CDETS in Cisco's Bug Toolkit, the caveat titles listed in this section are drawn directly from the Bug Toolkit database. These caveat titles are not intended to be read as complete sentences because the title field length is limited. In the caveat titles, some truncation of wording or punctuation might be necessary to provide the most complete and concise description.

Note: If you are a registered cisco.com user, view Bug Toolkit on cisco.com at the following website:

<https://tools.cisco.com/bugsearch>

To become a registered cisco.com user, go to the following website:

https://tools.cisco.com/RPF/register/register.do?exit_url=

Open CDETS

The following table lists the open CDETS in this release.

CPS Open CDETS

Table 2 CPS Open CDETS

CDETS ID	Headline
CSCvk14078	RAR delay while using ToD schedules
CSCvk39624	Next Eval time is not set properly when same rule is configured across midnight
CSCvk30794	Session expiry time is not honored if G/W does not respond to stale session RARs
CSCvk40776	Assigning p-bit for all the tenants in MOG
CSCvk12418	PCRF is creating SyPrime session but not sending AAR and then later sends Syp STR leading to a 5002
CSCvj94859	During pcrfclient01 stop and start, stats with prometheus query stopped coming to pcrfclient01

Open and Resolved CDETS

CDETS ID	Headline
CSCvk28926	API status is not changing to deployed but remaining as upgrading
CSCvk29947	ISO Mounting not occurring during API based upgrade
CSCvk30990	CPS 18.3 Nessus Vulnerability: Apache Zookeeper Missing Authentication Remote Quorum Joining
CSCvk33962	18.3 CPS Nessus Vulnerability: Pivotal Software Redis 2.6.x < 4.0.3 DoS
CSCvk35313	cluman puppet failing in audit related failures
CSCvk41519	During 18.3 ISSM,qns process not paused on lb01 after traffic swap
CSCvk39793	Openstack fresh installation successful without redis_enable parameter configuration

Microservices Open CDETS

Table 3 Microservices Open CDETS

CDETS ID	Headline
CSCvk08699	vDRA: Outbounds peers not reconnect after disconnecting from dsTest
CSCvk39917	vPAS: 3002 errors on site 2 when rebooting DD-1,PR-1 and DW on site1
CSCvk32928	vPAS DRA: rebooting whole region (2 sites), mongo RS members got stuck in not_initialized state

Resolved CDETS

This section lists the resolved/verified CDETS in this release.

CPS Resolved CDETS

Table 4 CPS Resolved CDETS

CDETS ID	Headline
CSCvi34182	Sy session not initiated upon SPR profile change via TIM Wrapper
CSCvi39355	Failed to retrieve origin-realm from diameter req msg. seen in service qns logs
CSCvi53391	PCRF retry behavior is not consistent when there are multiple realms for the same application
CSCvi86083	DRA is not retrying AAR through Relay DRA: Multiple issues
CSCvi88541	DRA successfully processing the answer of already time out request
CSCvi91326	Plugin configuration not available and function is broken when multiple system stop and start cmd exe.
CSCvi98120	CDR dumps deleted but not released for ftp transfer

CDETS ID	Headline
CSCvj10892	DRA peer monitoring getting timeout for showing ~1500 peers results.
CSCvj13538	DRA e2e response time in grafana is not updating for Rx AAR for F2214
CSCvj19708	receiving ERROR c.b.s.d.impl.mongo.MongoDatabaseUtil - null in consolidated-qns.log
CSCvj24795	CPS is not picking right remote db during POOL subscriber case
CSCvj25229	PCRF unable to handle race condition of Rx-AAR/Rx-STR
CSCvj31602	trace.sh missing logging when single Sy is enabled
CSCvj35703	PCRF sending double Gx_RAR upon receiving Sy_SLA Intermediate 5002 (ResultCodeBasedAction cfg)
CSCvj38577	UDC is not sending UPDATE_REQ on receiving Sy SLA
CSCvj39114	CRD_REF_AVP is not getting validated in GxRAR
CSCvj41245	Duplicate APN_Mapping table in PB after upgrade to 18.2
CSCvj44669	WARN messages in consolidated-qns - WARN c.b.s.d.impl.mongo.MongoDatabaseUtil - db is null
CSCvj45103	MOG 12.1 GET API request is not displaying the destport when port range is issued
CSCvj48165	Parallel Search on all shards for full DB scan
CSCvj51618	ISSM 13.1 to 18.2 - silo creation fails on 2 cluster HA setup
CSCvj51982	PCRF is initiating Gx RAR on Mog CC-Time expiry
CSCvj54114	High latency for CCR-Ts when single Sy feature is enabled but there is no Sy session
CSCvj54646	UDC logs filling pretty fast and UDC sending AllSOAPSsubscriptionServersDown with wrong error
CSCvj55109	PCRF behavior is not consistent on dedicated bearer modification during Boost and WPS calls
CSCvj57612	Reporting Level AVP in Rx
CSCvj60586	CPS is sending Rx_ASR instead of Rx_STA upon staHold Timer expiry when Netloc is enabled
CSCvj67915	CCR-T does not clean up SPR for duplicate session use case in GR
CSCvj69956	PCRF is not sending Sd RAR in case of SLA and TSA collision
CSCvj71255	Default memcacheClientTimeout parameter value
CSCvj73589	UDC is not sending update message on Sy STR
CSCvj73654	Policy Reparent does not work
CSCvj73733	PCRF is sending two RARs in case MOG CC-Time expiry case
CSCvj73928	AAR messages are intermittently being dropped

CDETS ID	Headline
CSCvj78411	observed multiple updateqos final callback response entry in crd logs
CSCvj78897	DRA is throwing 404 response for REST API request of DRA session using session-id
CSCvj78964	BEMS824969 CPS vDRA, 13.1: Call/Connection failure during chassis failure testing
CSCvj79215	SNMP trap is not being sent on IP address not reachable
CSCvj79482	To suppress AN_GW_Change event trigger from PCRF even when feature negotiation is initiated by PGW
CSCvj79566	vPCRF is not consistently performing Rx session binding even though memcache contains session data
CSCvj79574	spr remote db errors
CSCvj79700	Case sensitivity issue after introducing SVN CRD
CSCvj80608	BEMS828404 Consolidated logs Not generated for QNS VMs,
CSCvj81499	Rx ASR messages are getting delayed by 500 ms on bearer termination
CSCvj82377	BEMS820328 - DRA doesn't add Supported Vendor ID even if they are configured in PB and present in CER
CSCvj84369	Duplicate asterisk in DRA from CRD table
CSCvj86317	Search filter is not usable when CRD tables are maximized and alert notification GUI issue
CSCvj90509	DRA Events logs/Details on peer monitoring GUI is not popping up for some peers
CSCvj91655	CPS failing to terminate IMS bearer
CSCvj91966	IMSI based search in control center is not working
CSCvj92044	3GPP-MS-TimeZone AVP interpretation
CSCvj92170	CCR-T cross-site race condition impacting single Sh and single Sy
CSCvj92696	UDC: null DROP_EVENT is seen in statistics
CSCvj92934	PCRF is not sending authorized QoS in CCA-U on handover to WiFi
CSCvj93080	PCRF IPv6 session query sent to PCRF even when IPv6 binding is not marked for lookup
CSCvj93363	Error code : 5012 observed post External and Replication VLAN down GR CPS18.3
CSCvj94551	session_cache_ops.sh --statistics-count not working for UDC
CSCvj97485	PCRF is not replacing mind attribute on receiving UDR NOTIFY but it is adding two values
CSCvk00357	calea target state change not working for provisioned target

CDETS ID	Headline
CSCvk01065	CPS is creating duplicate EDRs for soft delete sessions in case of pool use case
CSCvk01086	DRA: Rx calls failing with error 'No dra workers available' during binding lookup.
CSCvk01866	UDC is not sending Profile Update message on LDAP write failure
CSCvk01961	Sy session termination inconsistency
CSCvk02769	Existing dedicated bearers should not be modified when any update occurs for that subscriber session
CSCvk06028	Exception while executing AAR with Framed-IPv6-Prefix with " 64 bit" length
CSCvk06105	SPR not cleared for a policy derived permanent failures on initial attach request
CSCvk06109	BEMS838155 vPAS Rate Limit Error when TPS is less than configured rate limit
CSCvk07550	BEMS839351 Relay message received from FN1 PAS did not get routed to the peer node by FN3 PAS
CSCvk11790	Wrong relay site selected in case of same peer connected to more than 1 DRA site in 3Site Relay
CSCvk13432	RAR not sent to install Rule when REMOVED VIDEO is sent in AAR
CSCvk15335	ANDSF MO Fill from CRD failing on nodes with the same name
CSCvk16033	After Sprint-3 Upgrade,CPS performance impact is seen & call model breaks at 10K TPS within few mins
CSCvk22708	Dictionary count is growing for real time notification subscriber
CSCvk22870	UDC session size growing gradually for invalid subscriber and It resulting into frequent GC
CSCvk25968	Kafka streams should have unique Application IDs for multiple topic subscription
CSCvk26407	Missing STRs for Standard Sy causing Stale Sy sessions on Sy OCS
CSCvk30239	vPAS DRA: REST API query for IPv6 binding not working beyond 100TPS
CSCvk32830	vPCRF - PSB - Security fixes
CSCvk34091	DRA is throwing exception for PCRF session query even if not configured in CRD
CSCvk35290	Display issue for new RAT values (1005/1006) in qns/engine log
CSCvk35731	Table missing for configurable http response code in latest DRA ISO
CSCvc95415	Unauthenticated access to Graphite DB on pcrfclients
CSCvf77666	Cisco Policy Suite Unauthenticated Information Disclosure Vulnerability
CSCvg50997	ISO installation New Deployment Initial Installation failed due to puppet failure

CDETS ID	Headline
CSCvi11085	Wrong log rotation in the whisper logs consumes all available disk space
CSCvi80509	session_cache_ops.sh script prints errors on cluman if /var/log/broadhop/scripts not created
CSCvi89606	ATT, MOG, 12.1, Certain Stats Using E-Notation (Scientific)
CSCvi97120	mac address of ethernet port is different in ifconfig output and vsphere.
CSCvj03623	update mongo_upgrade.py to support IPv6 and mongo authentication
CSCvj19227	CPS PSB Testing: Passwords are not properly secured in after centos upgrade in 18.2 release
CSCvj21424	Traffic went to zero during the rollback execution during ISSM
CSCvj26435	Unknown option getting displayed on terminal while building all replica set
CSCvj26447	collectd errors in var_log_messages
CSCvj28566	QPS:In monsum the haproxy-diameter is in Execution failed
CSCvj30195	Password ask 2 times of qns-ro/qsn-su/qns-admin/.. user
CSCvj30416	qns_hb script is not detecting qns vm failure
CSCvj30994	Monit process unable to start after restoring of cluman from snapshot (ISSM from 18.2 to 12.1.0)
CSCvj32494	During ISSM, migrate.sh with restore option of cluman from previously taken backup fails
CSCvj32905	ISSM 13.1 to 18.2 - disable set 1 asking for user input
CSCvj32928	Diagnostics.sh is showing exception in Active component alarm section
CSCvj33011	Unknown messages been printed on Shard creation
CSCvj33184	ISSM 13.1 to 18.2 - traffic went 0 on site 1 after running traffic swap command
CSCvj33234	ISSM 13.1 to 18.2 - arbiter UNKNOWN after provision of set 1 VMs
CSCvj34220	Sprint build upgrade on OSP setup via API failed
CSCvj70505	Able to login to VM's using qns-svn user through CLI but passwordless login between VMs is not working
CSCvj70557	Erroneous message displayed while checking about.sh and diagnostic.ch using qns-ro user
CSCvj70838	restartall.sh does not check qns service monit status
CSCvj76049	ISSM 13.1 to 18.2 - journal file for arbiter mongo process should be deleted
CSCvj76697	ISSM 13.1 to 18.2 - /usr/sbin/crm_resource --cleanup on cc02 failed
CSCvj78333	Unable to login via adminuser configured during enable root disable ssh feature
CSCvj79574	spr remote db errors

CDETS ID	Headline
CSCvj80015	ISSM 13.1 to 18.2 - : /var/broadhop/init_pacemaker_res.sh pcrfclient on cc02 failed
CSCvj80608	BEMS828404 Consolidated logs Not generated for QNS VMs,
CSCvj80855	Ldapsearchbase parameter is not updating value in configuration file issue in OSP only
CSCvj80861	restartall.sh script is taking invalid qns instance to restart
CSCvj82459	HAproxy URL was not accessible after CPS 18 upgrade/fresh install
CSCvj83992	QPS_Statistics.xls missing some stats - needs update.
CSCvj84572	Excessive SNMP traps generating when qns processes on lb were brought down
CSCvj88734	SRIOV enabled fresh CPS install or reboot VM, seen rename3 interface
CSCvj93418	Not able to add datasource with prometheus when Grafana dashboards invisible for pcrfclient01 down
CSCvj95299	Prometheus enable-for pcrfclient01 stop/start,collectd_exporter is not able to start on pcrfclient01
CSCvk20212	QPS_Statistics.xls missing some stats - needs update.
CSCvk23671	BEMS681875: Observing intermittently that Policy Trace stops working
CSCvk25012	Upgrade failing from 18.3 Sprint 3 ISO to Sprint 4 ISO
CSCvk25023	low memory clear alarm not generating.
CSCvk25105	WHISPER related failures seen in diagnostic if firewall is enabled
CSCvk26583	Update severity from warning to critical for diskFull and swap usage alarm
CSCvk27260	Monit process "logstash" has gone in "Execution Failed" state after upgrade of 18.3 sprint 4 build.
CSCvk28087	False logs " Few replica sets are not configured or some members are down"
CSCvk28504	aido server logs are not rotating based on file size
CSCvk30446	Cannot add new set of replica in mongoConfig using API on OSP setup
CSCvk32228	AIDO Client - ADMIN db not recovered if OPLOG size not defined in mongoconfig.cfg
CSCvk32331	During 18.3 ISSM forward path, restore of cluman from previously taken cluman backup fails
CSCvj36972	Failed to add both IPv4 and IPv6 IP address on LB VM VMW setup
CSCvj38737	Incorrect CPU in bulkstats
CSCvj39710	Unable to locate 'startqps' file intermediately after reboot to pcrfclient VM on CSP 18.2
CSCvj44072	LWR Performance - delay in replication
CSCvj44193	jvalidate.py is showing a warning "virt-what: unrecognized option" on 18.2 build

Open and Resolved CDETS

CDETS ID	Headline
CSCvj62175	Missing stats definition for bulkstats in QPS_Statistics.xls
CSCvj64462	qns-ro user user group able to execute other than read only script
CSCvj65020	missing definitions for stats node[x].messages.e2e__[realm_]Gx_CCR-I_5004
CSCvj69108	LB VMs are not able to sync with Configured NTP server
CSCvj70010	Error in puppet logs regarding sssd service while fresh installation using 18.3 sprint 1 ISO
CSCvj44857	memcached bug resulting in 5065 for cross-site volte scenario
CSCvj60665	ISSU upgrade from 18.2 CCO to 18.3 got failed with failed to stat() error
CSCvj61750	Running vm-init leaves env_config.tar.gz in current working directory
CSCvj61791	mon_db_for_lb_failover.sh leaves .js in / or in current directory when run manually
CSCvj62031	Insecure ports 80 open on CPS, Need to be Fixed ASAP

Microservices Resolved CDETS

Table 5 Microservices Resolved CDETS

CDETS ID	Headline
CSCvi86083	DRA is not retrying AAR through Relay DRA: Multiple issues
CSCvi88541	DRA successfully processing the answer of already time out request
CSCvi91326	Plugin configuration not available and function is. broken when multiple system stop and start cmd exe.
CSCvj10892	DRA peer monitoring getting timeout for showing ~1500 peers results.
CSCvj13538	DRA e2e response time in grafana is not updating for Rx AAR for F2214
CSCvj24795	CPS is not picking right remote db during POOL subscriber case
CSCvj31602	trace.sh missing logging when single Sy is enabled
CSCvj41245	Duplicate APN_Mapping table in PB after upgrade to 18.2
CSCvj48165	Parallel Search on all shards for full DB scan
CSCvj51618	ISSM 13.1 to 18.2 - silo creation fails on 2 cluster HA setup
CSCvj55291	BEMS819577 Shot Form IPv6 on Director - Diameter Connection failure
CSCvj67915	CCR-T does not clean up SPR for duplicate session use case in GR
CSCvj71255	Default memcacheClientTimeout parameter value

Open and Resolved CDETS

CDETS ID	Headline
CSCvj73654	Policy Reparent does not work
CSCvj78897	DRA is throwing 404 response for REST API request of DRA session using session-id
CSCvj79566	vPCRF is not consistently performing Rx session binding even though memcache contains session data
CSCvj79574	spr remote db errors
CSCvj79700	Case sensitivity issue after introducing SVN CRD
CSCvj80608	BEMS828404 Consolidated logs Not generated for QNS VMs,
CSCvj82377	BEMS820328 - DRA doesn't add Supported Vendor ID even if they are configured in PB nd present in CER
CSCvj86317	Search filter is not usable when CRD tables are maximized and alert notification GUI issue
CSCvj90509	DRA Events logs/Details on peer monitoring GUI is not popping up for some peers
CSCvj91655	CPS failing to terminate IMS bearer
CSCvj91966	IMSI based search in control center is not working
CSCvj92044	3GPP-MS-TimeZone AVP interpretation
CSCvj92170	CCR-T cross-site race condition impacting single Sh and single Sy
CSCvj93080	PCRF IPv6 session query sent to PCRF even when IPv6 binding is not marked for lookup
CSCvj93363	Error code : 5012 observed post External and Replication VLAN down GR CPS18.3
CSCvj94551	session_cache_ops.sh --statistics-count not working for UDC
CSCvk01065	CPS is creating duplicate EDRs for soft delete sessions in case of pool use case
CSCvk01086	DRA: Rx calls failing with error 'No dra workers available' during binding lookup.
CSCvk01961	Sy session termination inconsistency
CSCvk06028	Exception while executing AAR with Framed-IPv6-Prefix with " 64 bit" length
CSCvk06105	SPR not cleared for a policy derived permanent failures on initial attach request
CSCvk06109	BEMS838155 vPAS Rate Limit Error when TPS is less than configured rate limit
CSCvk07550	BEMS839351 Relay message received from FN1 PAS did not get routed to the peer node by FN3 PAS
CSCvk11790	Wrong relay site selected in case of same peer connected to more than 1 DRA site in 3Site Relay
CSCvk30239	vPAS DRA: REST API query for IPv6 binding not working beyond 100TPS

CDETS ID	Headline
CSCvk34091	DRA is throwing exception for PCRF session query even if not configured in CRD
CSCvk35731	Table missing for configurable http response code in latest DRA ISO
CSCvi85289	Management Console inaccessible on vDRA AIO
CSCvj19299	application logs stop working
CSCvj81019	Diameter connections fail if Consul quorum is lost
CSCvj82822	Zing JVM installation on DRA worker VMs - BEMS820928
CSCvj91346	Binding module stuck at AIO DRA installation/upgrade
CSCvj96997	DRA - Issue in Mongo configsrv and router configuration with similar IPV6 Strings.
CSCvk03450	Build failure on cps_microservices_base image- perl package
CSCvk14514	Grafana counts are not accurate

Related Documentation

This section contains information about the documentation available for Cisco Policy Suite.

Release-Specific Documents

Refer to the following documents for better understanding of Cisco Policy Suite.

- *CPS ANDSF Configuration Guide*
- *CPS ANDSF SNMP and Alarms Guide*
- *CPS Backup and Restore Guide*
- *CPS CCI Guide for Full Privilege Administrators*
- *CPS CCI Guide for View Only Administrators*
- *CPS Central Administration Guide*
- *CPS Geographic Redundancy Guide*
- *CPS Installation Guide - OpenStack*
- *CPS Installation Guide - VMware*
- *CPS LWR Guide*
- *CPS LWR Installation Guide - OpenStack*
- *CPS LWR Installation Guide - VMware*
- *CPS Migration and Upgrade Guide*
- *CPS Mobile Configuration Guide*

- *CPS MOG API Reference*
- *CPS MOG Guide*
- *CPS MOG Installation Guide - OpenStack*
- *CPS MOG SNMP, Alarms, and Clearing Procedures Guide*
- *CPS MOG Troubleshooting Guide*
- *CPS Operations Guide*
- *CPS Policy Reporting Guide*
- *CPS Release Notes*
- *CPS SNMP, Alarms, and Clearing Procedures Guide*
- *CPS Troubleshooting Guide*
- *CPS UDC API Reference*
- *CPS UDC Administration Guide*
- *CPS UDC Installation Guide*
- *CPS UDC Session Migration Guide*
- *CPS UDC SNMP and Alarms Guide*
- *CPS Unified API Reference Guide*
- *CPS vDRA Administration Guide*
- *CPS vDRA Configuration Guide*
- *CPS vDRA Installation Guide - OpenStack*
- *CPS vDRA Operations Guide*
- *CPS vDRA SNMP and Alarms Guide*
- *CPS vDRA Troubleshooting Guide*

These documents can be downloaded from the following links:

- All Guides
<https://www.cisco.com/c/en/us/support/wireless/quantum-policy-suite-mobile/products-installation-and-configuration-guides-list.html>

Obtaining Documentation and Submitting a Service Request

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